

IN THE CLAIMS

Claims 1-17(canceled).

18. (Original) A method of manufacturing a cellular trench-gate semiconductor device comprising active device cells in a cellular area of a semiconductor body, each active device cell having a channel-accommodating region of a second conductivity type between a surface-adjacent source region and an underlying drain region that are of a first conductivity type, the trench-gate being accommodated in an insulated gate trench that extends from the source region through the channel-accommodating region and into the underlying drain region, the trench-gate being dielectrically coupled to the channel-accommodating region by an intermediate gate dielectric layer at sidewalls of the gate trench, wherein a respective end structure is provided for at least one group of the cells by process steps that include:

- (a) providing in a portion of the drain region adjacent to a surface of the body a surface-adjacent end region of the second conductivity type that has a higher doping concentration than the channel-accommodating region,
- (b) providing a trench-etch mask having windows there-through where the gate trench and an end trench are to be etched into the body, the end trench being an extension of the gate trench into the end region,
- (c) etching the gate trench and the end trench into the body,
- (d) providing the gate dielectric layer at the sidewalls of the gate trench and end trench, the gate dielectric layer having a smaller thickness than the trench-etch mask,

(e) providing gate material in the gate trench and end trench and extending through the windows in the trench-etch mask and onto an upper surface of the trench-etch mask, and
(f) patterning the gate material by etching away areas thereof to leave the gate material

- in the gate trench to form the trench-gate,
- in the end trench and in the associated window to form an extension of the trench-gate,
- and on an adjacent area of the trench-etch mask to form a conductive layer that is connected to the extension of the trench-gate and that has a lateral extent terminating in an edge on the trench-etch mask.

19. (Currently amended) A method according to Claim 18, ~~wherein one or more of the additional device features of Claims 2 to 17 are provided.~~

20. (Currently Amended) A method according to Claim 18 ~~or 19~~, wherein, after patterning the gate material in step (f), the trench-etch mask and its windows are used to provide the source region and/or an insulating capping layer on the trench-gate in a self-aligned manner with respect to the gate trench.

21. (Currently Amended) A method according to Claim 18 ~~any one of Claims 18 to 20~~, wherein the trench-etch mask comprises silicon nitride that is provided in step (b) over at least a major area of a field-oxide and that protects this field-oxide area during subsequent processing steps such as the steps (c) and (f).

22. (Currently Amended) A method according to Claim 18 ~~any one of Claims 18 to 21~~, wherein the trench-etch mask comprises

silicon nitride that is provided in step (b), an oxide layer is provided after step (f) over the nitride area of the trench-etch mask in the end structure, and this oxide layer protects the underlying nitride area when the trench-etch mask is subsequently etched away from the active device cells.